

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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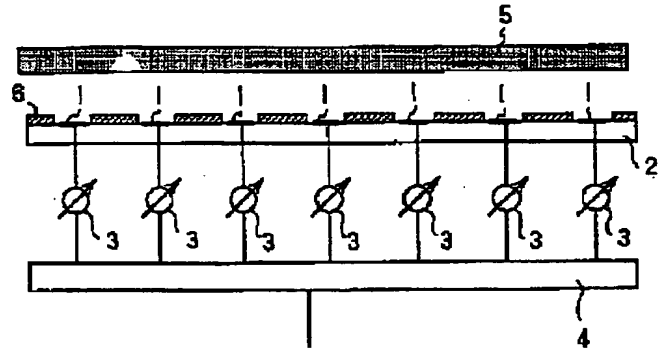
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TITLE : PHASED ARRAY ANTENNA SYSTEM



**ABSTRACT :** PROBLEM TO BE SOLVED: To smoothen change in the gain of an array antenna in the case of beam scanning by arranging a radio wave absorber at a position on an element antenna board where no element is in existence, thereby suppressing multiple reflection with a radome.

**SOLUTION:** This antenna system is provided with an element antenna board 2 on which plural element antennas 1 are arranged, a phase shifter 3 connecting to the element antennas 1, a feeder circuit 4, a radome 5 arranged in front of the element antenna board 2 in parallel with the board, a radio wave absorbing body 6, which is arranged onto the element antenna board 2 where no element antenna 1 is in existence. An electromagnetic emitted from each element antenna 1 at a wide angle is reflected in the radome 5 and the reflected electromagnetic wave is absorbed by the radio wave absorbing body 6 without being reflected in the antenna board 2. As the element pattern of the element antennas 1, the element pattern without a ripple and not affected by the multiple reflection between the antenna element 2 and the radome 5 is obtained and a gain change at beam scanning time is smoothened.

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